

# ABSTRACT

An optical interconnect comprises an input configured to receive light of a plurality of light wavelengths and a plurality of holographic optical elements. Each element configured to reflect one out of the plurality of light wavelengths and allowing others of the plurality of wavelengths to not be reflected. Each of a plurality of prisms is configured to rotate received light at a different angle than any of the other prisms. For each holographic optical element, one of the plurality of prisms is positioned to receive and rotate light reflected by that holographic element. Each of a plurality of beam splitters is positioned to receive light rotated by a respective one of the plurality of prisms and all the plurality of beam splitters direct light to an output of the optical interconnect.